Title **Evolving the Technical Infrastructure of the Planetary Data System for the 21st Century**

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Abstract The Planetary Data System (PDS) was established in 1989 as a distributed system to assure scientific oversight. Initially the PDS followed guidelines recommended by the National Academies Committee on Data Management and Computation (CODMAC, 1982) and placed emphasis on archiving validated datasets. But overtime user demands, supported by increased computing capabilities and communication methods, have placed increasing demands on the PDS. The PDS must add additional services to better enable scientific analysis within distributed environments and to ensure that those services integrate with existing systems and data. To face these challenges the Planetary Data System (PDS) must modernize its architecture and technical implementation. The PDS 2010 project addresses these challenges. As part of this project, the PDS has three fundamental project goals that include: (1) Providing more efficient client delivery of data by data providers to the PDS (2) Enabling a stable, long-term usable planetary science data archive (3) Enabling services for the data consumer to find, access and use the data they require in contemporary data formats.

In order to achieve these goals, the PDS 2010 project is upgrading both the technical infrastructure and the data standards to support increased efficiency in data delivery as well as usability of the PDS. Efforts are underway to interface with missions as early as possible and to streamline the preparation and delivery of data to the PDS. Likewise, the PDS is working to define and plan for data services that will help researchers to perform analysis in cost-constrained environments.

This presentation will cover the PDS 2010 project including the goals, data standards and technical implementation plans that are underway within the Planetary Data System. It will discuss the plans for moving from the current system, version PDS 3, to version PDS 4.